Application Serial No.: 09/800,541

Inventors: Knudsen et al.

Express Mail Label No.: EV 246878841 US

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of the claims in the

application:

Listing of Claims

Claims 1-25 (cancelled)

Claim 26 (currently amended) A method for lowering one or more serum lipids in a patient

in need of such treatment, said method comprising administering to said patient a lipid-

lowering effective amount of a GLP-1 agonist, wherein said GLP-1 agonist is GLP-1 (7-37),

GLP-1 (7-36) amide, exendin-3 or exendin-4 or an analogue or derivative of any of the

foregoing.

Claim 27 (currently amended) [A] The method [as defined in] according to claim 26,

wherein said one or more serum lipids are selected from the group consisting of: low density

lipoprotein (LDL); small, dense LDL; very low density lipoprotein (VLDL); triglycerides;

free fatty acids; cholesterol; and high-density lipoprotein (HDL).

Claim 28 (currently amended) [A] The method [as defined in] according to claim 26,

wherein said GLP-1 agonist is selected from the group consisting of Arg²⁶, Lys³⁴(N-ε-(γ-

 $Glu(N-\alpha-hexadecanoyl)))$ -GLP-1(7-37), Arg^{34} , $Lys^{26}(N-\epsilon-(\gamma-Glu(N-\alpha-hexadecanoyl)))$ -GLP-1(7-37)

1(7-37), exendin-3, exendin-4, Val⁸-GLP-1(7-37), Thr⁸- GLP-1(7-37), Met⁸- GLP-1(7-37),

and Gly⁸-GLP-1(7-37).

Claim 29 (currently amended) [A] The method [as defined in] according to claim 26,

wherein said GLP-1 agonist binds to a GLP-1 receptor with an affinity constant (Kd) below 1

 μ M.

Claims 30-35 (cancelled).

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Claim 36 (currently amended) [A] <u>The</u> method [as defined in] <u>according to</u> claim 26, wherein said patient suffers from a disease state that is alleviated by lowering serum levels of said one or more lipids.

Claim 37 (currently amended) A method for reducing the serum LDL:HDL ratio in a patient in need of such treatment, said method comprising administering to said patient a GLP-1 agonist in an amount effective [for said reduction] to reduce said LDL:HDL ratio, wherein said GLP-1 agonist is GLP-1 (7-37), GLP-1 (7-36) amide, exendin-3 or exendin-4 or an analogue or derivative of any of the foregoing.

Claim 38 (currently amended) [A] <u>The</u> method [as defined in] <u>according to</u> claim 37, wherein said GLP-1 agonist is selected from the group consisting of Arg^{26} , $Lys^{34}(N-\epsilon-(\gamma-Glu(N-\alpha-hexadecanoyl)))-GLP-1(7-37)$, Arg^{34} , $Lys^{26}(N-\epsilon-(\gamma-Glu(N-\alpha-hexadecanoyl)))-GLP-1(7-37)$, exendin-3, exendin-4, Val^8 -GLP-1(7-37), Thr^8 - GLP-1(7-37), Met^8 - GLP-1(7-37), and Gly^8 -GLP-1(7-37).

Claim 39 (currently amended) [A] The method [as defined in] according to claim 37, wherein said GLP-1 agonist binds to a GLP-1 receptor with an affinity constant (Kd) below 1 μ M.

Claim 40 (currently amended) A method for reducing the serum level of lipoprotein A (lp(A)) and/or apolipoprotein A (apo(A)) in a patient in need of such treatment, said method comprising administering to said patient a GLP-1 agonist in an amount effective [for said reduction] to reduce said serum level of lipoprotein A (lp(A)) and/or apolipoprotein A (apo(A)), wherein said GLP-1 agonist is GLP-1 (7-37), GLP-1 (7-36) amide, exendin-3 or exendin-4 or an analogue or derivative of any of the foregoing.

Claim 41 (currently amended) [A] <u>The</u> method [as defined in] <u>according to</u> claim 40, wherein said GLP-1 agonist is selected from the group consisting of Arg^{26} , $Lys^{34}(N-\epsilon-(\gamma-Glu(N-\alpha-hexadecanoyl)))-GLP-1(7-37)$, Arg^{34} , $Lys^{26}(N-\epsilon-(\gamma-Glu(N-\alpha-hexadecanoyl)))-GLP-1(7-37)$, exendin-3, exendin-4, Val^8 -GLP-1(7-37), Thr^8 - GLP-1(7-37), Met^8 - GLP-1(7-37), and Gly^8 -GLP-1(7-37).

Claim 42 (currently amended) [A] The method [as defined in] according to claim 40, wherein said GLP-1 agonist binds to a GLP-1 receptor with an affinity constant (Kd) below 1 μ M.

Claim 43 (new): The method according to claim 26, wherein the GLP-1 agonist is GLP-1 (7-37) or GLP-1 (7-36) amide.

Claim 44 (new): The method according to claim 26, wherein the GLP-1 agonist is an analogue of GLP-1 (7-37).

Claim 45 (new): The method according to claim 44, wherein in the analogue of GLP-1 (7-37), one amino acid residue of GLP-1 (7-37) has been substituted by another amino acid residue.

Claim 46 (new): The method according to claim 26, wherein the GLP-1 agonist is a derivative of GLP-1 (7-37).

Claim 47 (new): The method according to claim 46, wherein the derivative of GLP-1 (7-37) has one or more lipophilic substituents.

Claim 48 (new): The method according to claim 46, wherein the derivative of GLP-1 (7-37) is a derivative of an analogue of GLP-1 (7-37).

Claim 49 (new): The method according to claim 48, wherein in the analogue of GLP-1 (7-37), one amino acid residue of GLP-1 (7-37) has been substituted by another amino acid residue.

Claim 50 (new): The method according to claim 49, wherein the derivative is Arg^{34} , $Lys^{26}(N-\epsilon-(\gamma-Glu(N-\alpha-hexadecanoyl)))-GLP-1(7-37)$.

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Claim 51 (new): The method according to claim 26, wherein said GLP-1 agonist is exendin-

Claim 52 (new): The method according to claim 26, wherein said GLP-1 agonist is an exendin-4 analogue.

Claim 53 (new): The method according to claim 37, wherein the GLP-1 agonist is GLP-1 (7-37) or GLP-1 (7-36) amide.

Claim 54 (new): The method according to claim 37, wherein the GLP-1 agonist is an analogue of GLP-1 (7-37).

Claim 55 (new): The method according to claim 54, wherein in the analogue of GLP-1 (7-37), one amino acid residue of GLP-1 (7-37) has been substituted by another amino acid residue.

Claim 56 (new): The method according to claim 37, wherein the GLP-1 agonist is a derivative of GLP-1 (7-37).

Claim 57 (new): The method according to claim 56, wherein the derivative of GLP-1 (7-37) has one or more lipophilic substituents.

Claim 58 (new): The method according to claim 56, wherein the derivative of GLP-1 (7-37) is a derivative of an analogue of GLP-1 (7-37).

Claim 59 (new): The method according to claim 58, wherein in the analogue of GLP-1 (7-37), one amino acid residue of GLP-1 (7-37) has been substituted by another amino acid residue.

Claim 60 (new): The method according to claim 59, wherein the derivative is Arg^{34} , $Lys^{26}(N-\epsilon-(\gamma-Glu(N-\alpha-hexadecanoyl)))-GLP-1(7-37)$.

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Claim 61 (new): The method according to claim 37, wherein said GLP-1 agonist is exendin-

Claim 62 (new): The method according to claim 37, wherein said GLP-1 agonist is an exendin-4 analogue.

Claim 63 (new): The method according to claim 40, wherein the GLP-1 agonist is GLP-1 (7-37) or GLP-1 (7-36) amide.

Claim 64 (new): The method according to claim 40, wherein the GLP-1 agonist is an analogue of GLP-1 (7-37).

Claim 65 (new): The method according to claim 64, wherein in the analogue of GLP-1 (7-37), one amino acid residue of GLP-1 (7-37) has been substituted by another amino acid residue.

Claim 66 (new): The method according to claim 40, wherein the GLP-1 agonist is a derivative of GLP-1 (7-37).

Claim 67 (new): The method according to claim 66, wherein the derivative of GLP-1 (7-37) has one or more lipophilic substituents.

Claim 68 (new): The method according to claim 66, wherein the derivative of GLP-1 (7-37) is a derivative of an analogue of GLP-1 (7-37).

Claim 69 (new): The method according to claim 68, wherein in the analogue of GLP-1 (7-37), one amino acid residue of GLP-1 (7-37) has been substituted by another amino acid residue.

Claim 70 (new): The method according to claim 69, wherein the derivative is Arg^{34} , $Lys^{26}(N-\epsilon-(\gamma-Glu(N-\alpha-hexadecanoyl)))-GLP-1(7-37)$.

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Claim 71 (new): The method according to claim 40, wherein said GLP-1 agonist is exendin-

Claim 72 (new): The method according to claim 40, wherein said GLP-1 agonist is an exendin-4 analogue.